

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 2

pending and withdrawn claims is presented in full, with those pending/withdrawn claims not being amended herein being presented in clean version.

IN THE CLAIMS:

1. (Currently Amended) A biological optical measurement instrument comprising:

a measurement probe attachable to an external surface of a subject, which irradiates light beams having a plurality of wavelengths from a light beam source through optical fibers onto a subject, and collects the light beams passed inside the subject from a plurality of positions, and produces from collected light beams a light beam intensity picture image of the subject, wherein the measurement probe is provided with ~~an~~ a plurality of optical fiber fixing members insertable through a plurality of access entries, which ~~fixes~~ fix ~~ones of~~ the optical fibers in a predetermined interval and a support member which supports the optical fiber fixing members, and ~~the~~ where at least one optical fiber fixing member of the plurality of optical fiber fixing members is a hollow cylinder ~~holder~~ having ~~an~~ a hair displacement access cut out portion which is different than the access entries, extending along a side thereof for at least a partial longitudinal length thereof, for displacing portions of hair of the subject outside of a hollow area of the hollow holder.

2. (Canceled)

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 3

3. (Previously Presented) A biological optical measurement instrument according to claim 1, comprising the biological optical measurement instrument provided with a sense stimulating means having an acoustic means which outputs a predetermined acoustic wave and/or a video means which displays a predetermined video image, and a picture image production means which produces a light beam intensity picture image of the subject relating to the stimulating output from the sense stimulation means.

4. (Currently Amended) A biological optical measurement instrument comprising:

a measurement probe attachable to an external surface of a subject, which irradiates light beams having a plurality of wavelengths at a plurality of positions of the subject via an optical fiber while contacting the optical fiber onto the skin surface thereof, and collects light beams passed inside the subject from a plurality of other positions of the subject via another optical fiber while contacting the other optical fiber onto the skin surface thereof, and produces a light beam intensity picture image of the subject based on the light beam passed inside the subject and collected, where the measurement probe is constituted by a shell plate which includes a plurality of probe holder attachment holes provided so as to correspond to a predetermined optical fiber arrangement pattern, a plurality of probe holders which are attached to respective probe holder attachment holes in the shell plate and have access entries, and probe casings which catch top end portions of respective optical fibers and are fitted into the respective probe holders, and wherein at least one

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 4

probe holder of the optical-fiber fixing member plurality of probe holders is a hollow cylinder holder having an a hair displacement access cut out portion which is different from the access entries, extending along a side thereof for at least a partial longitudinal length thereof, for displacing portions of hair of the subject outside of a hollow area of the hollow holder.

5. (Previously Presented) A biological optical measurement instrument according to claim 4, wherein the measurement probe is constituted to permit movement in horizontal direction.

6. (Previously Presented) A biological optical measurement instrument according to claim 4, comprising the measurement probe supported by a pair of stationary support pillars via belts attached to both ends of the measurement probe.

7. (Canceled)

8. (Previously Presented) A biological optical measurement instrument according to claim 4, wherein each of the probe holders of the measurement probe is an incomplete cylindrical shape formed by cutting out a longitudinal part thereof.

9. (Previously Presented) A biological optical measurement instrument according to claim 8, comprising the shell plate of the measurement probe provided with a hole which is used for displacing hair coming between one of the optical fibers

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 5

and the skin surface of the subject at the outside of each of the probe holder attachment holes and at the side of the cut out portion of each of the probe holders.

10. (Previously Presented) A biological optical measurement instrument according to claim 4, comprising the measurement probe provided with a compressed air injection means useable to displace hair coming between one of the optical fibers and the skin surface of the subject.

11. (Previously Presented) A biological optical measurement instrument according to claim 4, comprising each of the probe casings provided with a pressure sensor which monitors a contacting pressure of the optical fiber onto the skin surface of the subject.

12. (Previously Presented) A biological optical measurement instrument according to claim 4, comprising each of the probe casings provided with a shutter which shields the light beams from the optical fibers.

13. (Previously Presented) A biological optical measurement instrument according to claim 4, comprising a spring mechanism provided between each of the probe holders and the probe casings of the measurement probe, to press the optical fiber onto the skin surface of the subject.

14.-16. (Canceled)

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 6

17. (Previously Presented) A biological optical measurement instrument according to claim 1, wherein the measurement probe is held in such a manner to permit rocking of the subject integral with the support member.

18. (Previously Presented) A biological optical measurement instrument according to claim 4, wherein the measurement probe is rockable at an opposite face thereof from a face where the probe casings are fitted, in order to prevent displacement of contact positions between the optical fibers and the subject due to movement of the subject.

19.-27. (Canceled)

28. (Currently Amended) A biological optical measurement instrument according to claim 1, comprising a hair avoiding jig which is applied through the hair displacement access cut out portion of the optical fiber fixing member, wherein the hair avoiding jig is constituted by a holder portion and a guide extending from the holder portion, and the guide is bent near the top end thereof and is permitted to emit light therefrom.

29. (Currently Amended) A biological optical measurement instrument according to claim 4, comprising a hair avoiding jig which is applied through the hair displacement access cut out portion of the probe holder, wherein the hair avoiding jig

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 7

is constituted by a holder portion and a guide extending from the holder portion, and the guide is bent near the top end thereof and is permitted to emit light therefrom.

30. (Currently Amended) A biological optical measurement instrument comprising:

a measurement probe attachable to an external surface of a subject, which irradiates light beams having a plurality of wavelengths from a light beam source through optical fibers onto a subject, and collects the light beams passed inside the subject from a plurality of positions, and produces from collected light beams a light beam intensity picture image of the subject, wherein the measurement probe is provided with an-a plurality of optical fiber fixing members insertable through a plurality of access entries, which ~~fixes~~ fix ~~ones~~ one of the optical fibers in a predetermined interval, and a support member which supports the optical fiber fixing members, and where at least one the optical fiber fixing member of the plurality of optical fiber fixing members is a hollow member having an-a hair displacement access cut out portion which is different from the access entries, extending along a side thereof for at least a partial longitudinal length thereof, for displacing portions of hair of the subject outside of a hollow area of the hollow member.

31. (New) A biological optical measurement instrument according to claim 1, comprising a hair avoiding jig which is applied through the hair displacement access cut out portion of the optical fiber fixing member, wherein the hair avoiding jig is constituted by a holder portion and a guide in a cylinder shape or prism shape

MIKIHIRO *et al.*, SN 09/937,842
15 November 2005 Amendment
Reply to 15 June 2005 OA

Dkt. 983.40662X00/PO-65US-0803
Page 8

extending from the holder portion, and one end of the guide is arranged adjacent to a light source which is built-in in the holder portion and the other end of the guide is bent.

32. (New) A biological optical measurement instrument according to claim 4, comprising a hair avoiding jig which is applied through the hair displacement access cut out portion of the probe holder, wherein the hair avoiding jig is constituted by a holder portion and a guide in a cylinder shape or prism shape extending from the holder portion, and one end of the guide is arranged adjacent to a light source which is built-in in the holder portion and the other end of the guide is bent.

33. (New) A biological optical measurement instrument according to claim 30, comprising a hair avoiding jig which is applied through the hair displacement access cut out portion of the optical fiber fixing member, wherein the hair avoiding jig is constituted by a holder portion and a guide in a cylinder shape or prism shape extending from the holder portion, and one end of the guide is arranged adjacent to a light source which is built-in in the holder portion and the other end of the guide is bent.

34. (New) A biological optical measurement instrument according to claim 1, comprising a spring mechanism provided between each of the optical fiber fixing members and the hollow holder of the measurement probe, to press the optical fiber onto the skin surface of the subject.